

Moving towards action

Martin F. Price, Thomas Kohler and Georg Gratzer

Mountain forests are of global importance as sources of water, vital centres of biodiversity, and settings for tourism and recreation. For people living in mountain areas, they provide sources of livelihood and protection from natural hazards. This last function is also vital at a wider scale, along the many transport routes which cross mountain areas. To ensure the long-term provision of all the many functions of mountain forests, the many concerned stakeholders need to jointly design and implement informed policies and actions.

Actions depend on the context

While mountain forests around the world have many common values, their relative importance varies at many scales, depending not only on the particular type of forest but also on the economic, social, and political framework conditions. These vary considerably between mountain areas, particularly between industrialised and developing countries. Most mountain people live in developing countries and, in most of the world, poverty in mountain areas is higher than in lowlands. As poverty increases, so does the dependence of people on forests. For the rural poor, mountain forests function as a safety net by providing products and critical services at times of shortage and scarcity. In rare cases, they may also offer pathways out of poverty by providing high-value products. Both large-scale industrial logging and the establishment of large plantations for agrofuels, in response to growing energy demands, lead to the displacement of land users who are driven into less productive mountain areas. Increases in food prices, partly also caused by competition for land, affect poverty-stricken mountain communities more, and further increase the pressures on mountain forests for the substitution of products and energy. These changes and increased pressures amplify the baseline challenges of increases in demand for food production and increased population growth, often combined with poor governance, frequently reflected in uncertain land tenure rights.

In contrast, mountain areas in industrialised countries are often characterised by: decreasing human populations; the abandonment of agricultural land onto which forests can expand; underexploitation of forests, especially the less accessible; and increasing emphasis on ecosystem services, such as reliable water supplies, biodiversity, and landscapes for recreation and tourism. Given these significant contrasts, the appropriate responses often diverge; though all need to consider the importance of planning for uncertainty in a rapidly changing world.

Four guiding principles for action

To address these challenges, four guiding principles can be proposed for the protection and sustainable use of mountain forests:

- Measures to protect mountain forests need to be based on enhanced coordination at international and national levels, consider local specificities, and integrate forest issues into broader policies and programmes;
- International policies, e.g., policies on mitigating climate change and managing biodiversity, need to be evaluated in terms of their relevance to mountain forests and their consequences for livelihoods for mountain people;
- Local people are central actors in forest resource use; their needs must be considered in shaping policies and implementing activities which aim at the sustainable use of mountain forests;
- Approaches to sustainably manage and use mountain forests and, where necessary, protect them, must include many perspectives – far wider than the sectoral perspective of professional forestry.

These principles require actions at different levels, and by different groups of stakeholders, as presented below.

Action at the local level

Measures designed to manage mountain forests sustainably will fail unless they meet the needs of local people. However, local communities are not uniform; they differ widely in their economic, social and cultural characteristics, and hence in their influence and power to use local resources. Local communities therefore need to be encouraged to seek equity in the use of mountain forests and the many resources they provide: not only wood, but also many non-timber forest products and opportunities for recreation and tourism. Considering that many mountain forests are comprised of slow-growing trees, these forests should be managed with a longer-term view; it is rarely beneficial for local communities to accept short-term profits based on exploitative schemes offered

by outside agents or firms. A long-term view is also important when considering the possible impacts of climate change on mountain forests. Local communities must also be encouraged to revitalise or establish local institutions with the authority to enforce regulations for the sustainable and equitable use of their forests, and to mitigate local conflicts that might arise regarding their use. They should also be given user rights over high-value products and high-value forests.

Action at the national level

National policies that are either specific to mountain forests or address other sectors relevant to these forests – such as rural land use and development, energy supplies, climate change, water management, or biodiversity conservation – should adopt a long-term view within an overall framework of the sustainable use of natural resources. Such policies should consider the site-specific characteristics of mountain forests and the needs of local mountain communities with regard to mountain forest use. Typically, mountain forests provide a wide range of goods and services for mountain communities as well as many other users, such as industry, tourism, transportation, and urban populations. Highland-lowland interests as well as rural-urban needs must be carefully balanced. Multifunctionality – with a focus on the ecosystem services provided by mountain forests – can be a useful concept to achieve this aim.

A key need is for the political will to implement policies and legislation according to the principles of subsidiarity and decentralisation. Fostering local stewardship and accountability for the management of mountain forests on the basis of secure land tenure and local user rights is an important element of these principles. Alternative sources of energy such as solar power and hydropower, as well as more efficient ways to use energy, especially for cooking and heating, can reduce demands for fuelwood; ways must be found to support such alternatives. In the context of rural development, appropriate government policies can help provide an enabling environment for potential investors willing to create employment opportunities in the processing, industrial and service sectors. This is important in reducing pressure on natural resources, including mountain forests.

Where protective rather than productive uses need to be prioritised for reasons of national or international interest – such as protection of watersheds or conservation of biodiversity – governments should develop and implement equitable approaches to provide incentives to farmers or landowners to manage their forests. This is to ensure that the benefits accrue to the stakeholders who have to limit or change their uses of the forests, to compensate them for loss of opportunities of use and for managing forests for the benefit of the society at large.

Particularly in times of economic crisis, national funding for research and monitoring is reduced drastically; long-term monitoring programmes are often abandoned. Such actions endanger the provision of crucial information to enable informed policy-making. Mountain forests in particular, because of their ecological and social complexity, require intensive, interdisciplinary research and monitoring with adequate funding.

Action at the international level

Numerous international initiatives, research centres and programmes exist within the forest sector, such as the International Union of Forest Research Organizations (IUFRO) and its Special Program for Developing Countries (IUFRO-SPDC), the Centre for

International Forestry Research (CIFOR), the World Agroforestry Centre (ICRAF) and the United Nations Forum on Forests (UNFF). These initiatives and programmes need to be coordinated and to take account of mountain forests and the interests of the stakeholders who depend on them. In any effort on behalf of mountain forests, it is important to consider issues addressed in not only the mountain chapter (13) and the forest chapter (11) but also other chapters of 'Agenda 21' and the final documents of the World Summit on Sustainable Development in 2002, as many of these are indirectly concerned with mountain forests and other resources. These include international efforts to reduce debt and to expand market access for developing countries, implementation of international conventions – such as those on climate change and biodiversity – and financial mechanisms such as the Global Environment Facility (GEF) and the United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (REDD). Regional cooperation and networking with regard to the sustainable use of mountain forest resources should be encouraged, including, for example, policies regarding timber extraction (concessions), watershed management, and other transboundary issues such as biodiversity conservation and air pollution.

Action by civil society and NGOs

Civil society and NGOs from both mountain and lowland areas can play important roles in creating awareness, lobbying governments and key commercial users – such as the timber and tourism industries – in genuine cooperation with all concerned stakeholders. On the ground in mountain areas, they can demonstrate their commitment and effectiveness in designing, implementing, and providing support for locally appropriate, innovative ways to manage and use mountain forests to provide a variety of compatible outcomes. They can help to foster cooperative institutions of local users and provide support for minorities and for women, who depend most on forest resources in many mountain regions, but lack the support they need to express and safeguard their own interests. Where security of tenure or use of forest resources is weak, NGOs can play key roles in supporting local communities to strengthen the rights of local communities. Civil society and NGOs can also help increase political acceptance of sustainable resource use at regional, national and international levels.

Action by the timber industry and other commercial users

The timber industry and other commercial users, such as water and tourism companies, have key roles to play in developing approaches for sustainable forest management. Such approaches should be based on the principles of multifunctionality and of compensating local communities for their stewardship, and also consider long-term trends, such as climate change. Recognising that basic economic principles and shareholder value will remain important aspects of logging and other commercial operations, the timber industry should give higher priority to the accreditation of sustainable forest management and do more to support product labels. To achieve long-term sustainability, the various industries benefiting from mountain forests have a responsibility to help forge active partnerships with other stakeholders, especially mountain communities. These industries should be invited to consider innovative ways to finance complementary efforts that avoid or mitigate adverse environmental and social impacts that result from their activities, to develop an internationally binding code of conduct for the sustainable use of mountain forests, and to train their staff to make their operations more sustainable.

Action by the scientific and research communities

There is need to gain better understanding of mountain forests. First of all, this applies to forest ecology and silviculture. The main characteristics and functions of many plant and animal species in mountain forest ecosystems are still largely unknown, especially in tropical mountains. Likewise, understanding of the impacts of environmental stress, including air pollution and the effects of climate change, require long-term research and monitoring. Second, research should be targeted on the economic and socio-cultural aspects of the management and use of forest resources, including economic and societal valuation of mountain forests and the services they provide, and analysis of the effects of different land use systems on watersheds. Third, greater understanding is needed of the many locally developed land-use systems, especially those linking agriculture with forest resources (e.g., shifting cultivation, agroforestry). These systems provide valuable experience both in the local context and further afield. Fourth, in an era of increasing uncertainty, research is needed to understand which existing approaches and institutions can be utilised to provide resilience, and where new approaches and institutions are needed.

In the process of developing alternatives for the sustainable use of mountain forests, scientists should join forces with important stakeholder groups such as local experts and users, the timber and other industries, and forest authorities. Scientists must use their knowledge to educate and train forestry staff and practitioners about the many functions of mountain forests and the diverse groups that depend on them. They must become partners in collaborative research and learning processes, rather than continuing with extractive “science-push” research approaches. Finally, they must communicate their key findings more effectively to policy-makers, donors, and the general public – especially young people – in order to ensure informed decision-making and public support for the sustainable use of mountain forests.

From 2011 to 2012 and beyond

This report is a contribution to the International Year of Forests, 2011, whose aim is “to raise awareness and strengthen the sustainable management, conservation, and sustainable development of all types of forests for the benefit of current and future generations”. The report also looks forward to the ‘Rio + 20’ United Nations Conference on Sustainable Development in 2012. The two themes of the Conference are a green economy in the context of sustainable development and poverty eradication; and the institutional framework for sustainable development. As this report makes clear, mountain forests contribute to these two themes in many ways; yet there are still many challenges ahead in order to ensure that these forests are managed sustainably for the benefit of present and future generations of both hundreds of millions of mountain people and billions of other people around the world who depend on these key resources.

